

equating the single, double and triple incidence neutron count rates to a mathematical function related to a spontaneous fission rate (F_s), a self-induced fission rate (M), a (α, n) reaction rate (α) and a detection efficiency (ϵ);

assigning a probability distribution to each of the self induced fission rate, the detection efficiency, the α, n reaction rate and each of the counting rates;

providing probability distribution functions for a trial value;

calculating an overall value of a product of all the probability distribution functions; and

increasing the overall value to give an optimised solution corresponding to the spontaneous fission rate wherein the spontaneous fission rate is associated with the neutron source mass.
